

Are we ready for the big one? Lessons from a brief war that could apply to New Zealand primary health care services following a major disaster

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The experience of working with psychological trauma following exposure to conflict led to this editorial. In August 2008, Georgian military forces responded to military threats from the breakaway Georgian region known as South Ossetia by entering the territory. The military response from both Russian forces 'exercising' in the region and local militias was both swift and brutal. The five-day conflict led to an estimated 160 000 persons fleeing from the conflict zones near Tskhinvali in South Ossetia and the Shida Kartli region, particularly the city of Gori, as well as from similar military action in the western Georgian cities of Zugdidi, Poti and Senaki and the Kodori Gorge region of Abkhazia. In addition to displacement, numbers of these persons suffered significant personal trauma and loss, including having family members killed in the conflict, experiencing beatings and incarceration, rape and also destruction of homes and loss of property and livelihoods. Many of those caught up in the conflict had been traumatised in earlier regional wars in the early 1990s. Conservatively, 20% of this displaced population could be expected to develop post-traumatic stress disorder (PTSD) and the effects of trauma on displaced families and military and emergency services personnel previously caught up in the conflict were evident two months later.

The international response in the aftermath of the Georgian conflict primarily involved international medical and social aid organisations (e.g. International Red Cross, Médecins Sans Frontières, Save the Children) and a range of international and local non-government organisations. Their focus was on evaluating needs and managing the immediate medical, social and psychological impacts of dislocation and trauma. While this emer-

gency response was valuable and functioned to reduce the immediate impact of the war on many victims, the three-month time frame of these interventions was insufficient for the diagnosis and treatment of PTSD, especially for delayed effects. Local medical, psychiatric and psychological personnel had few resources, in terms of skills and medication, for treating the PTSD that increasingly emerged as a significant factor in post-conflict referrals. International donations of old stocks of benzodiazapines arrived, but local psychiatrists with trauma knowledge wisely insisted that the Ministry of Health reject them as inappropriate for treating trauma. However, the more effective selective serotonin reuptake inhibitor (SSRI) medications were unavailable due to cost, so many trauma victims went without medication or self-medicated with cheap and available alternatives, such as alcohol or valerian.

We were aware of the lack of personnel trained in trauma-focussed cognitive behavioural therapy (CBT) in Georgia so went there as volunteers two months after the conflict to train a cadre of mental health professionals so that they could themselves serve as future trainers of fellow professionals to deliver CBT for trauma victims, particularly those evidencing symptoms of PTSD. No other agency was focussed on providing for the long-term effects of trauma, and our programme was unfunded but was given moral support by the World Health Organization (WHO). It also was welcomed by the local psychiatric and psychology community. This experience of the effects of the conflict alerted us to the question of how well prepared the New Zealand (NZ) primary health care sector would be to cope with any widespread psychological trauma following a major disaster.

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While it is unlikely that there will be a war here, recent international seismic events have raised our awareness that, in NZ, we too are highly likely to experience natural disasters by virtue of our geographic location on major, active tectonic plate intersections, volcanic zones and the oceanic and climatic impacts which bring tsunamis, major floods and landslips. Climatic conditions may also generate circumstances for transport-related disasters, including road transport and aircraft crashes as well as maritime disasters. Although there are Civil Defence plans for immediate emergency disaster intervention, few, if any, resources appear to have been made available for trauma treatment over the longer term.

Any major disaster is accompanied by trauma for those upon whom it impacts either directly or indirectly, making them susceptible to post-traumatic reactions of varying levels of severity. Estimates suggest PTSD will affect up to 30% of

our and academic performance of children and adolescents.^{1,7} The Georgian experience has been that PTSD also has economic and social impacts on adults, with observed increases in alcohol and drug abuse, depression and family violence. These impacts affected adults' ability to care for children and also those normally expected to work with them, such as teachers and community health providers.⁸

There is an extensive body of evidence supporting trauma-focussed CBT as the most effective intervention for post-traumatic symptoms.^{4,5,9,10} There is also evidence that such CBT is also the intervention of choice when working with traumatised children,¹¹ including those as young as two years old.¹²

Given that only a small proportion of NZ's mental health professionals is trained to provide trauma-focussed CBT interventions, it is likely

Health professionals resident in a disaster area may be able to provide an initial response, but it has to be recognised that, in any major disaster, locals are themselves frequently traumatised and thus less well able to deliver an effective service

disaster victims.¹ Because of delayed reactions and factors associated with disruption of normal life, displacement from home, exposure to death or injury of family members, loss of employment or other family stressors, PTSD symptoms may continue to emerge over periods as long as six months to two years post-disaster.^{1,2} Research indicates that those most susceptible to development of PTSD are children, women and the elderly, which is not to suggest that males are immune as the military data on male PTSD indicate.^{4,5}

Post-disaster studies of children exposed to the effects of earthquakes, floods, tornados and the 9/11 terror attack show that they are particularly susceptible to PTSD.^{2,3,6,7} These effects are durable, especially if untreated, being evident for at least three years afterwards. The impacts of PTSD are found to affect both school behav-

that even fewer primary health care professionals will have had such training. As a result, provision of an effective response to moderate to severe trauma effects will be unlikely unless some consideration is given to training a cadre of professionals who would then be available to respond to the traumatic aftermath of any major disaster. Health professionals resident in a disaster area may be able to provide an initial response, but it has to be recognised that, in any major disaster, locals are themselves frequently traumatised and thus less well able to deliver an effective service.

We identified a number of lessons for primary health providers from the Russian-Georgian conflict and from the research literature that could be considered relevant to the NZ context in preparing for a natural disaster.

First, an initial emergency response, while helpful, is insufficient to provide significant benefits for persons suffering from moderate to severe post-traumatic effects, particularly as PTSD can, by definition, only be diagnosed at least four weeks after exposure to the traumatic experience.¹³

Second, children and the elderly are the most vulnerable to the development of post-traumatic symptoms, females are more susceptible than males, and post-traumatic symptoms have a major impact upon children's academic performance, particularly concentration, memory, and classroom demeanour and upon adults' ability to function normally.

Third, there were cultural and gender differences in symptom expression. In the cultural context, increases in somatic complaints (e.g. headaches, stomach pains) were noted, along with complaints of 'illness'. Cultural beliefs around mental illness made somatic symptoms a more acceptable mode of expressing stress and trauma than reporting 'mental' symptoms such as anxiety, phobias, panic reactions or re-experiencing. In terms of gender, boys tended to display post-traumatic problems through increases in their aggressive play, disobedience and displays of anger, aggression or anxiety (externalising), while girls tended to become withdrawn, depressed or anxious and less able to focus on school work (internalising). Women often expressed concerns about the men and children rather than their own symptoms, and tried to avoid discussing the situation that caused the trauma. Men were more likely to deny any traumatic symptoms and to avoid treatment, while at the same time demonstrating increases in drinking, smoking, anger and sleeplessness. Substance abuse and domestic violence increased amongst displaced and unemployed males, affecting both women and children in their families who already were living in very stressful circumstances. Males displaying trauma symptoms often denied trauma or avoided engaging with treatment services. The emergency service and military personnel exposed to the conflict were not immune from trauma effects, but frequently failed to seek assistance or be offered it.

Fourth, we found that, with our novice professionals, key CBT trauma intervention skills

could be taught to a level of mastery relatively easily and in a short time (six weeks), which made effective intervention available for those who accepted treatment. Our trainee therapists found that CBT produced rapid beneficial effects with adults and children, even in cases of severe PTSD symptoms and often after relatively brief exposure to treatment, so that symptoms such as avoidance, re-experiencing, insomnia and panic attacks became manageable, allowing normal functioning to be achieved.

Our conclusion was that it would make sense to train a cadre of primary health care personnel to deliver CBT for trauma so that NZ was well prepared for the effects of any major disaster on its own shores and better able to offer assistance to nearby Pacific countries experiencing natural disasters.

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